

In re patent application of:

BOUDREAU JR.

Continuation of 09/427,348 filed 10/26/1999

Filed: **HEREWITH**

Serial No. **NOT YET ASSIGNED**

In the claims:

1. - 12.(cancel)

13. (new) A circuit for supplying DC power voltage to a telephone line interface circuit coupled to respective loop portions of a telephone line comprising:

input terminals adapted to be coupled across a source of DC supply voltage;

output terminals adapted to be coupled to power supply terminals of said telephone line interface circuit; and

a switchmode converter circuit coupled with said input and output terminals and having a voltage sense input coupled to said respective loop portions of said telephone line, and being operative to provide a modulated DC voltage to said power supply terminals of said telephone line interface circuit, in accordance with whichever of said respective loop portions of said telephone line has the largest magnitude voltage, as sensed by said voltage sense input, so as to provide power supply tracking during application by said telephone line interface circuit to said telephone line of at least one of loop current, superimposed voice signals, loop start, ground start and balanced ringing.

14. (new) The circuit according to claim 13, wherein said switchmode converter comprises a comparator having first and second inputs, said first input being coupled to a DC-DC output node downstream of a switch installed in a DC supply rail of said source of DC supply voltage, said DC-DC output node being coupled to a power supply terminal of said telephone line interface circuit, and a second input coupled to a set point node, said set point node being coupled through a voltage offset path to each of said respective loop portions of said telephone line.

15. (new) The circuit according to claim 14, wherein said voltage offset path includes a voltage offset device coupled via

In re patent application of:

BOUDREAUX JR.

Continuation of 09/427,348 filed 10/26/1999

Filed: **HEREWITH**

Serial No. **NOT YET ASSIGNED**

respective diodes to tip and ring loop portions of said telephone line.

16. (new) The circuit according to claim 14, further including at least one smoothing filter circuit coupled in a circuit path that includes said DC-DC output node.

17. (new) The circuit according to claim 13, wherein said telephone line interface circuit is operative to interface digital signals with said telephone line.

18. (new) A circuit for supplying DC power voltage to a subscriber line interface circuit (SLIC) coupled to respective tip and ring portions of a telephone line comprising:

first and second input terminals adapted to be coupled across a source of DC supply voltage;

first and second output terminals adapted to be coupled to power supply terminals of said SLIC; and

a switchmode power converter circuit coupled to said first and second input terminals and to said first and second output terminals, and having a voltage sense input coupled to said respective tip and ring portions of said telephone line, and being operative to supply a prescribed DC supply voltage to said power supply terminals of said SLIC relative to the voltage level of one of said respective tip and ring portions of said telephone line as sensed by said voltage sense input during application to said telephone line of balanced ringing signals by said SLIC.

19. (new) The circuit according to claim 18, wherein said switchmode converter comprises a comparator having first and second inputs, said first input being coupled to a DC-DC output node downstream of a MOSFET switch installed in a DC supply rail of said source of DC supply voltage, said DC-DC output node being

In re patent application of:

BOUDREAUX JR.

Continuation of 09/427,348 filed 10/26/1999

Filed: **HEREWITH**

Serial No. **NOT YET ASSIGNED**

coupled to a power supply terminal of said SLIC, and a second input coupled to a set point node, said set point node being coupled through a voltage offset path to each of said respective tip and ring portions of said telephone line.

20. (new) A circuit for supplying DC power voltage to a subscriber line interface circuit (SLIC) coupled to respective tip and ring portions of a telephone line comprising:

first and second input terminals adapted to be coupled across a source of DC supply voltage;

first and second output terminals adapted to be coupled to power supply terminals of said SLIC; and

a switchmode power converter circuit coupled to said first and second input terminals and to said first and second output terminals, and being operative to supply a prescribed DC supply voltage to said power supply terminals of said SLIC relative to the voltage level of one of said respective tip and ring portions of said telephone line, said switchmode converter comprising a comparator having first and second inputs, said first input being coupled to a DC-DC output node downstream of a MOSFET switch installed in a DC supply rail of said source of DC supply voltage, said DC-DC output node being coupled to a power supply terminal of said SLIC, and a second input coupled to a set point node, said set point node being coupled through a voltage offset path to each of said respective tip and ring portions of said telephone line.